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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Afshin Momtaz

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EXAMINER

CHANG, DANIEL D

ART UNIT

PAPER NUMBER

2819

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EC

Office Action Summary	Application No. 10/749,965	Applicant(s) MOMTAZ ET AL	
	Examiner Daniel D. Chang	Art Unit 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 2-20 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/21/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 2, 6, 7, 12, 16, and 17 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 14, and 18 of U.S. Patent No. 6,696,854 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present application presents claims that are slightly broader versions of the patented claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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Claims 2-5, 8-15, 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lytle et al. (US 6,218,860 B1, hereinafter Lytle).

Regarding claim 2, Lytle discloses, at least in figures 2 and 5, a FIFO circuit comprising:
a write pointer circuit (505) coupled to receive a write clock signal (521) and configured to generate plurality of mutually exclusive write pointer signals (531) in accordance with the write clock signal;

a read pointer circuit (503) coupled receive a read clock signal (543) and configured generate plurality of mutually exclusive read pointer signals (533) accordance with the read clock signal; and

a plurality registers (501) coupled receive an input signal (output of 509), the registers configured to store data from the input signal accordance with the write pointer signals and configured to output data in accordance with the read pointer signals.

Regarding claim 3, Lytle discloses, at least in figures 2 and 5, that each of the registers is configured to receive a unique one the write pointer signals from the write pointer circuit.

Regarding claims 4 and 5, Lytle discloses, at least in figures 2 and 5, that each of the registers is configured to receive a unique one of the read pointer signals (533) from the read pointer circuit (503).

Regarding claim 8, Lytle discloses, at least in figures 2 and 5, an output register (515) coupled to receive the data output by the registers (501) and configured to output data accordance with the read clock signal (543).

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Regarding claim 9, Lytle discloses, at least in figures 2 and 5, a fifo pointer control circuit (507, 513) configured to generate signals controlling the write pointer circuit and the read pointer circuit.

Regarding claim 10, Lytle discloses, at least in figures 2 and 5, that the fifo pointer control circuit is configured to receive control signals (549, 555, 521, 543) to generate the signals for controlling the write pointer circuit and the read pointer circuit.

Regarding claim 11, Lytle discloses, at least in figures 2 and 5, that the control signals comprise at least one of a lock detect signal, a pointer reset signal, the write clock signal (521) and the read clock signal (543).

Method claims 12-15 and 18-20 are essentially the same in scope as apparatus claims 2-5, 8-11 and are rejected similarly.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 7, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lytle.

The teachings of Lytle have been discussed above.

Lytle does not specifically disclose that each of the write pointer circuit and the read pointer circuit comprises a plurality of flip-flops serially coupled in a ring.

However, it is well known in the art that a write pointer circuit or a read pointer circuit of a well known FIFO comprises a plurality of flip-flops serially coupled in a ring in order to produce a write pointer signal and a read pointer signal. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have provided the write pointer circuit and the read pointer circuit of Lytle with a well known plurality of flip-flops serially coupled in a ring to generate write and read pointer signals, respectively. It is an obvious matter of substitution of equivalence.

Response to Arguments

Applicant's arguments filed January 21, 2005 have been fully considered but they are not persuasive.

Applicant argues on page 6 of the Amendment filed January 21, 2005, that "Applicant respectfully submits that independent claims 2 and 12 are patentable over Alston and Lytle et al. For example, these references do not teach or suggest "a write pointer circuit . . . configured to generate a plurality of mutually exclusive write pointer signals" and "a read pointer circuit ... configured to generate a plurality of mutually exclusive read pointer signals" as claimed in claim 2. Similarly, these references do not teach or suggest "generating a plurality of mutually exclusive write pointer signals" and "generating a plurality of mutually exclusive read pointer signals" as claimed in claim 12. Rather these references disclose the use of an address bus (e.g., signals 122 and 132 in Alston and signals 531 and 533 in Lytle et al.)". However, even though these references disclose the use of an address bus, the "address bus" can be read as either "read pointer signals" or "write pointer signals" because the "address bus" 531 and 533 is output signal

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of the write pointer 505 and read pointer 533. Furthermore, it is noted that "the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art," *In re Morris*, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Alston (US 6,055,285) discloses a synchronization circuit for transferring pointer between two asynchronous circuits.

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel D. Chang whose telephone number is (571) 272-1801. The examiner can normally be reached on Monday through Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J. Tokar can be reached on (571) 272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel D. Chang
Primary Examiner
Art Unit 2819

dc

DANIEL CHANG
PRIMARY EXAMINER